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(54) Title: INDUCTION OF ANTIGEN–SPECIFIC UNRESPONSIVENESS BY GLIOBLASTOMA CULTURE SUPERNATANTS (GCS)

(57) Abstract

The present invention concerns methods of specifically inhibiting an immune response of a subject to one or more selected antigens using an immunosuppressive composition derived from a glioblastoma cell line. The method steps include obtaining a population of antigen presenting cells (APCs); loading the APC population with specific antigens (in auto–immune diseases) or using donor APCs (for transplantation); incubating the APC population with the immunosuppressive composition; and introducing the incubated cells into the subject being treated. The APCs can be monocytes, macrophages, or dendritic cells. This method causes specific inhibition of the immune response because it induces apoptosis and/or anergy in the subject's T cells specific for antigens present on the APCs, but does not affect the immune response to antigens not present on the APC surfaces. One particular embodiment of the present method is the specific inhibition of a transplant recipient's immune reaction to antigens present on the allogenic graft. A second particular embodiment of the present method is the specific inhibition of the immune response to an autoantigenic protein by a subject suffering from an autoimmune disease.